## Approved For Release 2005/0**SECRET**RDP78B04770A001100040015-1

MONTHLY REPORT

25X1

PAR 224

2 Oct 64

SUBJECT: 3 - 15X Fluid Gate Enlarger

### TASK/PROBLEM

1. Develop and fabricate an enlarger having continuously variable magnification from 3 to 15X for 70mm square negative gate size. Print sizes to range  $40 \times 40$  inches on cut sheet stock.

#### DISCUSSION

- 2. Work is proceeding with close correlation to that on PAR 202. Effort this period has been on:
- a. <u>Vacuum Platen and Carriage</u>: Design layouts for the platen and its carriage are about 50 percent complete. The requirements for a rigid, lightweight structure which can be transported easily to accurately known positions are, we believe, being met. Light metal castings are being considered. A motor-blower unit to evacuate the platen has been ordered.
- b. <u>Negative Transport</u>: Fabrication of the mockup is complete and preliminary alignment and film tracking tests were started. A ball-spline support for the film spool outrigger arm proved unsatisfactory due to deflection under load and helix in the spline shaft.
- c. <u>Lens Design</u>: Preliminary design data for one of the color lenses appear quite encouraging.

Declass Review by NGA.

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#### PLANNED ACTIVITY

- 3. Effort in the next period will be:
- a. Continue the vacuum platen and carriage design and possibly release some parts of the breadboard model for fabrication.
  - b. Modify and further test the negative transport breadboard.
- c. Order the mount design and sample lens fabrication for at least four of the monochromatic lenses.